

## WHAT IS CLAIMED IS:

1. A composition-of-matter comprising a mixture of albumin and a plasticizer.
2. The composition of claim 1, wherein said plasticizer is an organic plasticizer.
3. The composition-of-matter of claim 2, wherein said organic plasticizer is selected from the group consisting of glycerine, ethylene glycol, polyethylene glycol, 1,2 - propane diol, 1,3 - propane diol, 1,3 butane diol, 1,4 butane diol, pentaerythritol, glucose and starch.
4. The composition-of-matter of claim 2, wherein said organic plasticizer is glycerine.
5. The composition-of-matter of claim 1, wherein a ratio of said albumin and said plasticizer is 3:1 (w/w).
6. The composition-of-matter of claim 1, wherein the composition-of-matter is in a medical grade.
7. The composition-of-matter of claim 1, wherein the composition-of-matter is sterile.
8. A medical device, a portion of a medical device, a solder or an adhesive composed of a mixture of albumin and a plasticizer.
9. The medical device, the portion of the medical device, the solder or the adhesive of claim 8, wherein said plasticizer is an organic plasticizer.
10. The medical device, the portion of the medical device, the solder or the adhesive of claim 9, wherein said organic plasticizer is selected from the group

consisting of glycerine, ethylene glycol, polyethylene glycol, 1,2 – propane diol, 1,3 – propane diol, 1,3 butane diol, 1,4 butane diol, pentaerythritol, glucose and starch.

11. The medical device, the portion of the medical device, the solder or the adhesive of claim 9, wherein said organic plasticizer is glycerine.

12. The medical device, the portion of the medical device, the solder or the adhesive of claim 8, wherein a ratio of said albumin and said plasticizer in the composition is 3:1 (w/w).

13. The medical device, the portion of the medical device, the solder or the adhesive of claim 8, wherein the medical device is an anastomotic device.

14. The medical device, the portion of the medical device, the solder or the adhesive of claim 13, wherein said anastomotic device is selected from the group consisting of a ring, a sleeve and a stent.

15. The medical device, the portion of the medical device, the solder or the adhesive of claim 8, wherein said mixture is in a medical grade.

16. The medical device, the portion of the medical device, the solder or the adhesive of claim 8, wherein said mixture is sterile.

17. A method of manufacturing a medical device or a portion of a medical device, the method comprising shaping a mixture of albumin and a plasticizer in a form of the medical device or the portion of the medical device, thereby manufacturing the medical device or the portion of the medical device.

18. The method of claim 17, wherein said plasticizer is an organic plasticizer.

19. The method of claim 18, wherein said organic plasticizer is selected from the group consisting of glycerine, ethylene glycol, polyethylene glycol, 1,2 –

propane diol, 1,3 - propane diol, 1,3 butane diol, 1,4 butane diol, pentaerythritol, glucose and starch.

20. The method of claim 18, wherein said organic plasticizer is glycerine.
21. The method of claim 17, wherein a ratio of said albumin and said plasticizer is 3:1 (w/w).
22. The method of claim 17, wherein the medical device is an anastomotic device.
23. The method of claim 22, wherein said anastomotic device is selected from the group consisting of a ring, a tube and a stent.
24. The method of claim 17, wherein said shaping is facilitated by curing said mixture in a mold.
25. The method of claim 24, wherein said curing is effected at a temperature range of 60-90 °C.
26. The method of claim 24, wherein said curing is effected at a temperature range of 80-90 °C.
27. The method of claim 24, wherein said curing is effected under conditions such that the medical device generated includes 10-15 % water (w/w).
28. The method of claim 24, wherein said curing is effected at conditions of 80-95 % humidity.
29. The method of claim 24, wherein said curing is effected for a duration of 10 - 120 minutes.

30. The method of claim 24, wherein shaping is effected by a method selected from the group consisting of film casting, injection molding, calendaring, compression molding, rotational molding, spin casting and extrusion.

31. The method of claim 17, wherein said mixture is in a medical grade.

32. The method of claim 17, wherein said mixture is sterile.

33. Use of a composition comprising a mixture of albumin and a plasticizer for the manufacture of a medical device, a portion of a medical device, a solder or an adhesive.

34. The use of claim 33, wherein said plasticizer is an organic plasticizer.

35. The use of claim 34, wherein said organic plasticizer is selected from the group consisting of glycerine, ethylene glycol, polyethylene glycol, 1,2 – propane diol, 1,3 – propane diol, 1,3 butane diol, 1,4 butane diol, pentaerythritol, glucose and starch.

36. The use of claim 34, wherein said organic plasticizer is glycerine.

37. The use of claim 33, wherein a ratio of said albumin and said plasticizer in the composition is 3:1 (w/w).

38. The use of claim 33, wherein said mixture is in a medical grade.

39. The use of claim 33, wherein said mixture is sterile.